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(12) **United States Patent**
Roth(10) **Patent No.: US 6,208,343 B1**
(45) **Date of Patent: Mar. 27, 2001**(54) **GRAPHICAL USER INTERFACE SCROLL BAR THAT PROVIDES VARIED LEVELS OF ACCESS GRANULARITY**(75) Inventor: **Steven William Roth**, Rochester, MN (US)(73) Assignee: **International Business Machines Corporation**, Armonk, NY (US)

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(21) Appl. No.: **08/988,021**(22) Filed: **Dec. 10, 1997**(51) **Int. Cl.⁷** **G06F 3/00**(52) **U.S. Cl.** **345/341; 345/123; 345/339; 345/163**(58) **Field of Search** 345/341, 973, 345/974, 123, 340, 339, 163(56) **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Raymond J. Bayerl*Assistant Examiner*—Cuong T. Thai(74) *Attorney, Agent, or Firm*—Steven W. Roth(57) **ABSTRACT**

The scroll box processor of the present invention provides increased access capabilities by providing four different access modes. Each mode involves a different level of access (i.e., coarse to fine). The fine access mode provides unit by unit access (line by line in the case of a document) by allowing the user to accomplish fine access through the scroll box itself. The remaining access modes are provided by combining conventional left mouse button/scroll box interaction with user mode selection.

21 Claims, 7 Drawing Sheets